

Amendment to the Claims:

Please amend the Claims as follows and without prejudice. This listing of Claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

What is claimed is:

1. (canceled)

2. (previously presented): An ultrasonic transducer comprising:

- a holder having at least two spaced apart cylindrical surfaces;
- a cylindrical piezoelectric film spanning between the at least two spaced apart cylindrical surfaces of the holder;
- an outer electrode segment disposed on an outer surface of the film; and
- an inner electrode segment disposed on an inner surface of the film;
- a cover spaced from the outer surface of the film, the cover including a flange restricting propagation of the radiating acoustic energy along a propagation path defined along an exterior of the film;

wherein the transducer radiates acoustic energy substantially along a longitudinal axis thereof in response to an excitation voltage applied to the film via the electrode segments.

3. (original) The transducer of claim 2, further comprising a reflector disposed at an end thereof for redirecting the radiating acoustic energy in an opposite direction.

4. (previously presented): An ultrasonic transducer comprising:
- a holder having at least two spaced apart cylindrical surfaces;
 - a cylindrical piezoelectric film spanning between the at least two spaced apart cylindrical surfaces of the holder;
 - an outer electrode segment disposed on an outer surface of the film;
 - an inner electrode segment disposed on an inner surface of the film;
 - a reflector disposed at an end thereof for redirecting the radiating acoustic energy in an opposite direction;
- wherein the transducer radiates acoustic energy substantially along a longitudinal axis thereof in response to an excitation voltage applied to the film via the electrode segments.
5. (previously presented): An ultrasonic transducer comprising:
- a holder having at least two spaced apart cylindrical surfaces;
 - a cylindrical piezoelectric film spanning between the at least two spaced apart cylindrical surfaces of the holder;
 - an outer electrode segment disposed on an outer surface of the film; and
 - an inner electrode segment disposed on an inner surface of the film,
- wherein: the at least two spaced apart cylindrical surfaces comprising a plurality of spaced apart cylindrical surfaces;
- the film spanning between at least two pairs of the plurality of spaced apart cylindrical surfaces of the holder;
 - the outer electrode segment comprising a plurality of outer electrode segments; and
 - the inner electrode segment comprising a plurality of inner electrode segments; and

wherein the transducer radiates acoustic energy substantially along a longitudinal axis thereof in response to an excitation voltage applied to the film via the electrode segments.

6. (original) The transducer of claim 5, further comprising a cover spaced from the outer surface of the film, the cover including a flange restricting propagation of the radiating acoustic energy along a propagation path defined along an exterior of the film.

7. (original) The transducer of claim 6, further comprising a reflector disposed at an end thereof for redirecting the radiating acoustic energy in an opposite direction.

8. (original) The transducer of claim 5, further comprising a reflector disposed at an end thereof for redirecting the radiating acoustic energy in an opposite direction.

9-20. (canceled)

21. (previously presented) An ultrasonic transducer comprising:

- a holder having at least two spaced apart cylindrical surfaces;

- a cylindrical piezoelectric film spanning between the at least two spaced apart cylindrical surfaces of the holder;

- an outer electrode segment disposed on an outer surface of the film;

- an inner electrode segment disposed on an inner surface of the film;

- wherein the transducer radiates acoustic energy substantially along a longitudinal axis thereof in response to an excitation voltage applied to the

film via the electrode segments and wherein the excitation voltage has a frequency which has a wavelength in a propagation medium, and a width of each of the electrode segments is about half of the wavelength.

22. (original) The transducer of claim 21, further comprising a drive circuit for sequentially applying the excitation voltage to the electrode segments of the transducer.

23. (previously presented): An ultrasonic transducer comprising:

- a holder having at least two spaced apart cylindrical surfaces;

- a cylindrical piezoelectric film spanning between the at least two spaced apart cylindrical surfaces of the holder;

- an outer electrode segment disposed on an outer surface of the film;

- an inner electrode segment disposed on an inner surface of the film;

- a drive circuit for sequentially applying an excitation voltage to the electrode segments of the transducer; and

- wherein the transducer radiates acoustic energy substantially along a longitudinal axis thereof in response to the excitation voltage applied to the film via the electrode segments.

24. (original) The transducer of claim 5, wherein the excitation voltage has a frequency which has a wavelength in a propagation medium, wherein about half of the wavelength is more than a width of each of the electrode segments.

25. (original) The transducer of claim 24, further comprising a drive circuit for sequentially applying the excitation voltage to the electrode segments of the transducer.

26. (original) The transducer of claim 5, further comprising a drive circuit for sequentially applying the excitation voltage to the electrode segments of the transducer.

27-61 (canceled).

62. (original) The transducer of claim 5, wherein the holder restricts propagation of the radiating acoustic energy along a propagation path defined within an interior of the film.

63-65.(canceled)

66. (original) The transducer according to claim 5, wherein the electrode segments have a center to center distance of one-half of a wavelength and the electrode segments are driven such that every other one is driven in-phase with every adjacent electrode segment in opposite phase drive.

67. (canceled)

68. (previously presented) An ultrasonic transducer comprising:

- a holder having at least two spaced apart cylindrical surfaces;

- a cylindrical piezoelectric film spanning between the at least two spaced apart cylindrical surfaces of the holder;

- an outer electrode segment disposed on an outer surface of the film; and

- an inner electrode segment disposed on an inner surface of the film;

wherein the transducer radiates acoustic energy substantially along a longitudinal axis thereof in response to an excitation voltage applied to the film via the electrode segments and wherein the excitation voltage has a frequency which has a wavelength in a propagation medium, and a width of each of the electrode segments is about 10 to 20 percent greater than one-half the wavelength.